**Estrogen Receptor β Antibody**

**100 µl**
(10 western blots)

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

### Applications

<table>
<thead>
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<th>W</th>
<th>Endogenous</th>
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### Species Cross-Reactivity

- H, M, R, Mk

### Molecular Wt.

- 52, 55, 63 kDa

### Source

Rabbit**

**Background:** Estrogen Receptor β (ER β) is a member of the nuclear receptor superfamily of transcription factors and was discovered to be encoded by a gene (ESR2) distinct from that encoding Estrogen Receptor α (ER α) (1,2). While studies have revealed that alternative splicing generates multiple isoforms of ER β that differ at their respective C-termini and in tissue distribution, ER β1 is believed to be the longest and only fully functional isoform (3,4). Indeed, it has been reported that shorter isoforms of ER β (ER β2, β4, and β5) can heterodimerize with ER β1 and enhance its transcriptional activity in an estradiol-dependent manner (4). ER β is expressed in a wide range of normal and malignant tissues, many of which corepress ER α. It is proposed that ER β has an antiproliferative role, perhaps through heterodimerization with ER α and repression of its transcriptional activity at estrogen response elements (5,6). Recent studies have revealed that expression of ESR2 is subject to epigenetic regulation and that loss of ER β expression positively contributes to epithelial-mesenchymal transition and enhanced invasiveness in prostate cancer (7,8). ER β has also been found to be negatively regulated at the posttranslational level through phosphorylation of its AF-1 domain, which promotes its ubiquitin-dependent proteasomal degradation (9,10).

**Specificity/Sensitivity:** Estrogen Receptor β Antibody detects endogenous levels of total Estrogen Receptor β protein. This antibody is predicted to cross-react with all Estrogen Receptor β isoforms. This antibody does not cross-react with Estrogen Receptor α.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Estrogen Receptor β1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Recommended Antibody Dilutions:**

**Western blotting** 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Background References:**


**Supplementary Information:**

- **Molecular Wt.:** 52, 55, 63 kDa
- **Application:** Western Blotting

**Recommended Antibody Dilutions:**

- **Western Blotting:** 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Background References:**


**Important:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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**Applications Key:**
- **W**—Western
- **IP**—Immunoprecipitation
- **HC**—Immunohistochemistry
- **CIP**—Chromatin Immunoprecipitation
- **IF**—Immunofluorescence
- **F**—Flow cytometry
- **E-P**—ELISA-Peptide
- **Species Cross-Reactivity Key:**
  - **H**—Human
  - **M**—Mouse
  - **R**—Rat
  - **Hm**—Hamster
  - **Mk**—Monkey
  - **Mi**—Mink
  - **C**—Chicken
  - **Dm**—D. melanogaster
  - **X**—Xenopus
  - **Z**—Zebrafish
  - **B**—Bovine
- **Dg**—Dog
- **Pg**—Pig
- **Sc**—S. cerevisiae
- **Ce**—C. elegans
- **Hr**—Horse
- **All**—All species expected

**Swiss-Prot Acc.:** Q92731

**Entrez-Gene ID:** #2100

**Storage:** Supplied in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

- **Western blotting** 1:1000

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**Important:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.